

AMENDMENT AND RESPONSE

Serial Number: 09/227,593

Filing Date: January 8, 1999

Title: ANTIMICROBIAL, BEVERAGE COMPATIBLE CONVEYOR LUBRICANT

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found in the specification as originally filed.

The language relating to the chelating agents being for divalent cations has been added to the specification using the priority/antecedent basis of claims 5 and 15 for that amendment. That objection has therefore been removed.

Claims 1, 2, 3, 6, 7, 10, 11, 16 and 17 are amended, no claims are canceled, and new claims 21 and 30 are added; as a result, claims 1-22 are now pending in this application. Antecedent basis for the absence of fatty acids as recited in claims 21 and 22 may be found generally in the specification and Page 2, lines 18-24 where fatty acid lubricants are described as a different type of lubricant from other forms of lubricants (including by clear inference those of the present invention) and the examples, some of which are free of carboxylic acid lubricants. Similarly, claims 23 and 24 recite that the compositions consist essentially of the composition, thereby excluding large amounts of major functional materials, such as the carboxylic acid lubricants. Antecedent basis for the proportions of anionics (the phosphate ester) and the cationics (the quaternary ammonium compounds) may be found generally in the specification and, for example, on page 8, line 16 through page 9, line 14.

Applicant respectfully requests reconsideration of the above-identified patent application as amended and in view of the following remarks.

Double Patenting Rejection

The Examiner provisionally rejected claims 1, 4-9, 11 and 14-19 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-6, 14, 17-19 and 22 of co-pending application Serial No. 09/231,255. A terminal disclaimer is enclosed herewith to obviate the double patenting rejection.

Rejections Under 35 U.S.C., First and Second Paragraphs

The Examiner rejected claims 1-11 under 35 USC 112, first paragraph, stating that the specification, while being enabling for alkyl and aryl alkoxylated phosphates, does not reasonably provide enablement for all alkyl and aryl phosphates.

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The Rejection of Claims 1-11 Under 35 U.S.C. 112, First Paragraph

A rejection under 35 U.S.C. 112, first paragraph, must establish as a matter of law and fact that the objected to terms are not enabled to one of ordinary skill in the art by providing a reasoned basis why the claimed language is not enabled by the specification (e.g., *Ex parte Kenaga*, 1976 PTO Bd. of App, 190 USPQ 346). The mere assertion that terms are broad or not understood is not a sufficient ground to sustain such a rejection (e.g., *In re Marzocchi and Horton*, CCPA 1971, 1669 USPQ 367), but rather specific reasons must be provided. In the present case, even if some factual reason was asserted that the terms "alkyl phosphate ester" and "aryl phosphate ester" were not enabled in the specification (other than the assertion itself), the fact is that the compounds are well known and enabled to one of ordinary skill in the art solely by their naming. Applicant is citing and providing herewith, clear documentation that those of ordinary skill in the art are completely familiar with and able to obtain alkyl phosphate esters and aryl phosphate esters based upon publicly available information. Specifically Applicants cite herewith:

US Patent No. 5,490,886 showing mono-, di-, and tri-alkyl phosphate esters, aryl phosphate esters and mixed esters.

US Patent Nos. 5,789,370; 5,649,596; and 5,730,995 show alkyl phosphate esters generically.

US Patent No. 5,698,365 shows the use of alkyl phosphate esters as high boiling solvents in combination with mixtures of compounds and other solvents in a photographic material.

US Patent Nos. 5,650,213 and 5,498,352 show aryl phosphate esters generically.

US Patent Nos. 5,600,089 and 5,612,305 generically describes alkyl phosphate esters and cites US Patent No. 3,314,891 as a further generic enabling disclosure of alkyl phosphate esters.

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McDaniel, U.S. Pat. No. 5,001,114 teaches alkyl monoglycoside and polyglycoside phosphate esters and anionic derivatives thereof. Gutzmann, U.S. Pat. No. 5,352,376 teaches an aqueous lubricant composition containing an alkyl polyglycoside material in combination with organo phosphates including alkyl orthophosphate such as a stearyl (fatty alcohol) phosphate, an alkyl phosphate ester, etc. Despo, U.S. Pat. No. 5,391,308 teaches an alkaline aqueous lubricant concentrate containing a fatty acid, an alkyl phosphate ester and an alkyl aryl phosphate ester that operates both as an emulsifying agent and as a stress crack inhibitor.

It is abundantly clear that both alkyl phosphate esters and aryl phosphate esters are well known, commercially available materials, and that the description of those classes of compounds in the specification fully enables those classes.

It must also be noted that the use of these compounds is simply to form mixtures/solutions of these compounds with other materials, so, in the absence of any clearly established reason on the record, the use of these materials is also enabled, since the process of manufacturing the claimed subject matter is simple mixing. This rejection is clearly in error and must be withdrawn.

However, in an effort of accomodation, Applicants have limited the claims to the alkoxylated species.

The Rejection of Claims 6, 7, 10, 16, 17 and 20 Under 35 USC 112, Second Paragraph

Claims 6, 7, 10, 16, 17 and 20 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 10 and 16 have been amended, obviating the rejection of claims 6, 10, 16 and 20. Applicants still prefer the commonly accepted term "amine-type" acetic acid, as used in the specification and shown in U.S. patent No. 4,873,183 (cited in the specification at page 10, line 16), but accepts the identically equivalent scope of the term "amine acetic acid" substituted into the claims.

The objection to claims 7 and 17 is not understood. It is not legally sufficient to merely quote terms and assert their ambiguity. The objected to language of

“said aryl phosphate ester comprises a phenol ester wherein said phenol group is not substituted with alkyl groups”

is believed to have a clear and unambiguous meaning, and the rejection fails to establish any other position. The language means that the aryl phosphate recited in an earlier claim is further limited by the recitation of the claims as also being a phenol ester. Even the possibility of any confusion has been overcome by amending the claim to recite that the aryl phosphate ester is an “phenol phosphate ester.” This rejection issue is also no longer tenable.

35 U.S.C. §103 Rejection of Claims

Claims 1-6, 8-9, 11-16 and 18-19 were rejected under 35 USC 103(a) as being unpatentable over Despo (US 5,391,308) in view of Liu et al. (5,244,589). The rejection is believed to be fairly summarized as asserting that:

1) Despo shows an alkyl (alkoxylated) phosphate, and alkylaryl alkoxylated phosphate, amine chelating agent (e.g., EDTA), and a metallic hydroxide, but does not show a quaternary ammonium antimicrobial agent.

2) Liu is cited as showing ammonium antimicrobial agents in lubricating compositions.

3) It is therefore asserted that it would have been obvious to include the ammonium antimicrobial agent of Liu into the lubricating composition of Despo to gain the antimicrobial benefit of Liu.

This rejection is respectfully traversed. The salient flaw in this rejection is that the lubricant composition of Despo and the lubricant composition of Liu are fatty carboxylic acid based lubricants, which were clearly distinguished from the organic phosphate ester lubricants described in the present invention. As noted in the specification:

“U.S. Patent No. 5,391,308 discloses phosphate esters other than alkyl or linear esters (e.g., the alkyl aryl phosphate esters described on column 6, lines 11-20 used in combination

with the alkyl or linear phosphate esters). **The lubricant system of this patent also requires the use of an aqueous based long chain fatty acid composition at a pH of from 9.0 to 10.5 as the lubricant,** with specifically combined ingredients to avoid stress cracking in polyethylene terephthalate (PET) bottles transported on a conveyor system. The aromatic-polyoxyalkyl esters are specifically disclosed as part of a combination of esters (along with the alkyl esters) which

“...results in substantial reduction in stress cracking, thus functioning as the stress cracking inhibiting agent, as well as the emulsifying agent, in the aqueous lubricant concentrate.@ (Column 3, lines 48-52). “

The reference is specific to fatty acid lubricants, and the specification points out that the use of potassium hydroxide as the saponifying agent, in fatty acid lubricants, has been found to contribute to and to promote stress cracking in P.E.T. (polyethylene terephthalate) bottles. A blend of alkyl phosphate esters and aromatic phosphate esters are shown in combination with the fatty acid lubricant to reduce stress cracking. “

Therefore, the major benefit of that patent reference (Despo), the ability to reduce or eliminate the effect of potassium hydroxide on stress cracking from a substantively fatty acid lubricant, is not even a concern to the present invention. It is to be noted that claims 21-30 offer various alternative linguistic ways of specifically excluding the use of the carboxylic acid lubricants or reciting a weight percentage of phosphate esters and quaternary ammonium compounds that is outside the scope of useful or even possible ranges with a carboxylic acid based lubricant as described by Despo and Liu. The limitations of claims 25-30 could not be present in the compositions of Despo and Liu according to the scope of their teachings or the underlying nature of those compositions as fatty acid based lubricants rather than the different phosphate ester lubricants of the present invention.

It is clearly not obvious to one of ordinary skill in the art to fundamentally alter the nature of the lubricating compositions of both Despo and Liu (from a fatty acid lubricant) to create a **phosphate ester lubricant** (as recited in the claims). The benefit of the fundamental ingredients of the presently claimed invention, the phosphate esters, as taught by Despo, is to correct for a problem created by the use of the fatty acid (the major component of the fatty acid lubricant). It is clearly unobvious to remove, reduce, or narrow the presence of the fatty acid (as required by various claims as now amended), yet still retain components (the phosphate esters) that are described as reducing the adverse effects of the components to be removed. That

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complex and contradictory attempt to combine the references fails to even approach obviousness and cannot be asserted to establish even a *prima facie* case of obviousness.

The rejection under 35 U.S.C. 103 is clearly in error and must be withdrawn.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6975) to facilitate prosecution of this application.

If necessary please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

MICHAEL E. BESSE ET AL.

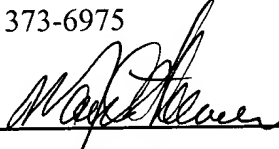
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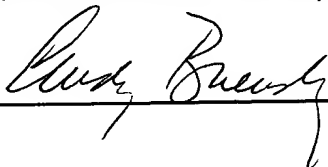
Date 5 November 1998 By 

Mark A. Litman

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner of Patents, Washington, D.C. 20231 on November 5, 1999.

CANDY BUENDING
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